

Raelians, shmaelians

The federal government needs to ignore hype, and act reasonably on cloning.

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Ethics of a plague

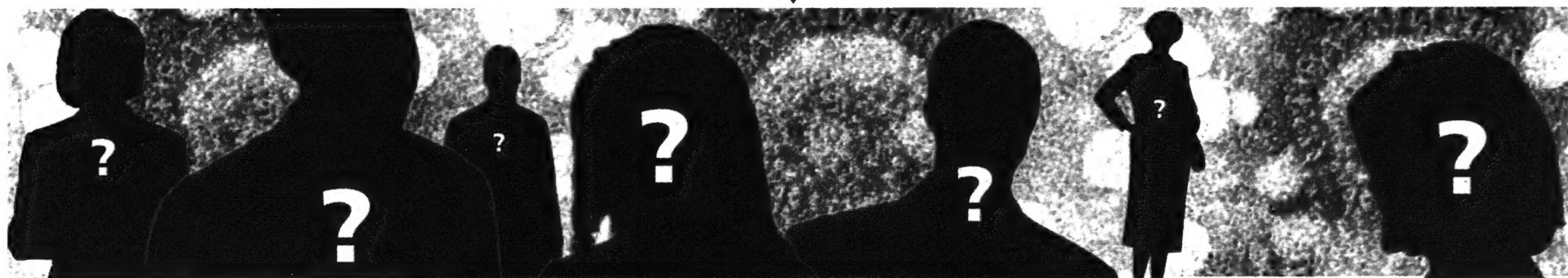
Public health officials are expecting a devastating global flu pandemic. When the plague comes, will they help you?

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UNIVERSITY OF ALBERTA

folio

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Polar bears on thin ice

Global warming may lead to extinction

By Geoff McMaster

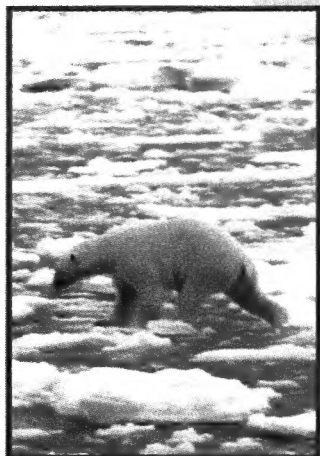
Unless the pace of global warming is abated, polar bears could disappear within 100 years, says a University of Alberta expert in Arctic ecosystems.

While it has been known for some time that the polar bear is in trouble, new research by climate scientists shows that Arctic ice, the polar bear's primary habitat, is melting much faster than scientists had believed, says U of A biologist Dr. Andrew Derocher.

"The climate predictions coming out are showing massive changes in sea-ice distribution," said Derocher, who follows polar bears to see how they adapt to changing conditions. If the predictions are correct, he says, "we'll certainly lose polar bears in a lot of areas where we currently have them." Ice conditions in the Beaufort Sea, for example, are already changing dramatically.

The world's largest terrestrial carnivores, polar bears rely on sea ice to survive, using it to pass between forest dens and hunting grounds where they prey on seals. There are about 15,000 polar bears in northern Canada, accounting for about two-thirds of the world's total population.

Derocher shared his views recently at a symposium on Arctic biology in Toronto. It was the biggest gathering of



Climate change in the Arctic is occurring more rapidly than scientists had estimated, resulting in melting of sea ice, essential to polar bear habitats. U of A biologist Dr. Andrew Derocher, seen above recording data from a polar bear, says continued warming will devastate the species.

Canadian Arctic biologists in more than a decade, says co-chair Dr. David Hik, also of the U of A. Many of the talks addressed the impact of climate change on northern ecosystems.

Derocher says if global warming continues unchecked, some remnant populations of polar bears may manage to hang on in the high Canadian archipelago or on permanent polar ice at very high latitudes. But the potential for extinction is still a cause for concern: "You don't have

to be a polar scientist to see that if you take away all the sea ice, you don't have polar bears any more."

To make matters worse, sea-ice melting is accelerated by "positive feedback loops." Sea ice acts as a reflector of solar energy, but when the ice disappears, the ocean absorbs that heat energy, which in turn prevents ice from freezing.

"Once climate warming initiates, you get into a self-warming cycle," said Derocher. "That's why the urgency on the

issue for polar bears now."

He adds that it is possible a warmer climate will improve polar bear and seal habitats in the short term, mainly in higher latitudes where ice is too thick for seal hunting. But these areas are small, he says, and will only support a fraction of the bear population.

Polar bears can tolerate some environmental variation from year to year, foregoing reproduction in any given year if conditions are poor. With too much variation, however, reproduction will fall off dramatically, and populations will quickly decline. Scientists have no evidence yet of a drop in polar bear populations, but body weights and reproductive rates of bears in the Hudson Bay are on the decline," said Derocher.

Hik says there is also new research looking at the harmful effect of drought-related forest fires on polar bear dens, which are built in mature forests.

"When you burn the forest down, it blackens the earth, and these dens burrowed into the permafrost collapse," said Hik. "Many of them are created over centuries by successive generations of bears scraping deeper and deeper in." The area around Churchill, Manitoba is one such area that has been losing these dens.

Derocher is one of the newest members of the Department of Biological Sciences. A U of A alumnus who completed his doctorate in 1991, he went on to earn international renown as a polar bear and northern studies expert at the Norwegian Polar Institute in Tromsø. He returned to join the U of A faculty last summer. ■



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A homecoming for new VP

Communication's the key in portfolio

By Andrew Leitch

Don Hickey first came for the French fries. He and some of the boys from the neighbourhood knew a good deal when they found one and the cafeteria in the basement of the Students' Union Building made a darned good fry. Almost four decades later, Hickey has returned as the University of Alberta's Vice President (Facilities and Operations). And his office, in what eventually became University Hall, is a few steps away from where the deep fryer once sputtered.

In the intervening years, Hickey has taken a few steps of his own, from Edmonton to Vancouver to New York and Chicago. He has worked on skyscrapers and arenas, universities and airports, high-tech headquarters, hospitals, hotels, shopping malls and theatres.

After earning an electrical engineering degree from the U of A in 1971, where he played both hockey and football, Hickey went to work for the local engineering firm that employed him in the summers. He was sent to the firm's Vancouver office in 1976 and brought home as a partner in 1978. During his early years in Edmonton he was associated with a number of high-profile projects, including Commonwealth Stadium, the Kinsmen Aquatic Centre and Edmonton Centre.

In 1984, Hickey moved his young family to New York City where he went to work for a major mechanical/electrical consultant. His experiences in the U.S. shaped his views of Canada and, especially, his home province.

"It only took me a few months in New York to realize how sophisticated [our design and construction methods] were in Alberta. I assumed New York, with the scale of its engineering projects, would be more sophisticated than us. It's not. In fact in a lot of ways we're more efficient here," he said.

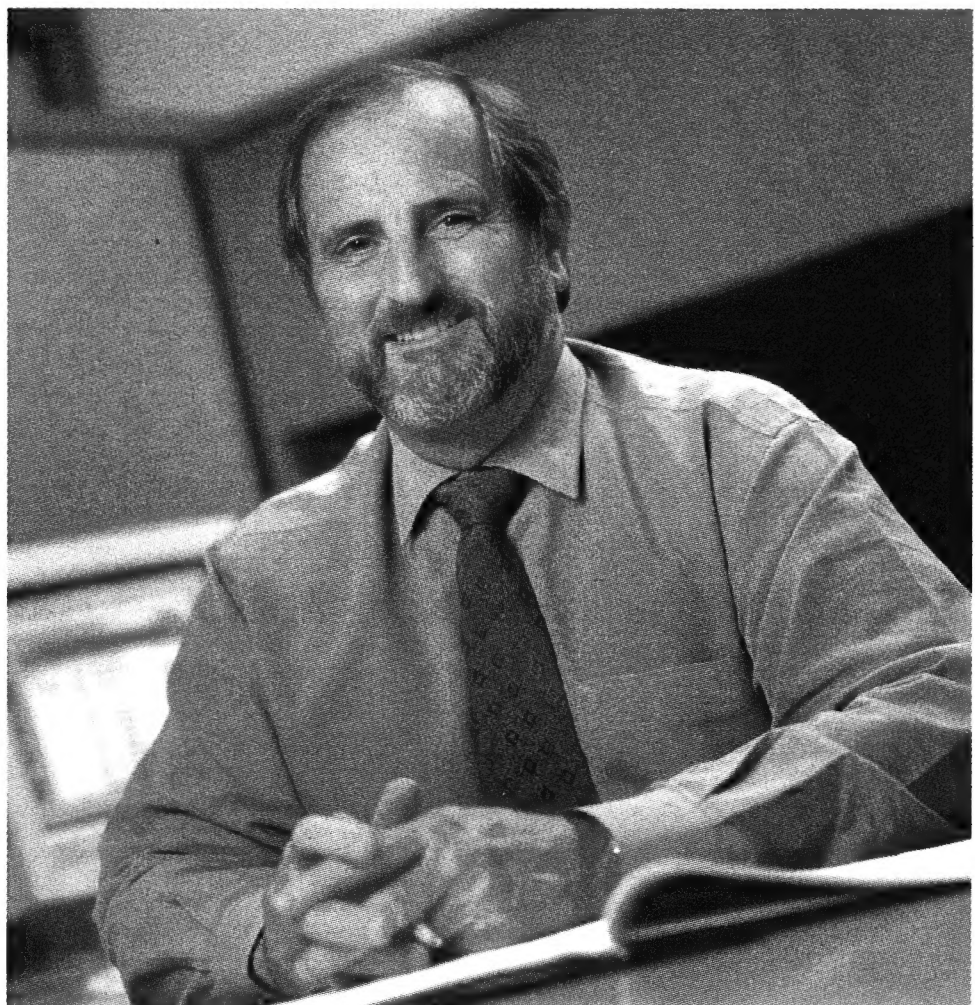
From his base in New York, Hickey moved between electrical design and project management and oversaw such projects as One Liberty Place in Philadelphia and the Vanderbilt Ambulatory Care Facility in Nashville. He was also involved with the temporary staging for the massive centennial celebration of the Statue of Liberty in 1986.

By 1989 Hickey felt it was time to come home. "We enjoyed our experience in New York, and Chicago is a great place to live, but we decided we wanted our children to grow up in Canada."

Hickey came to Edmonton where he consulted for several months before joining the Stanley Organization, which would become Stantec. When the U of A began its search for a new vice-president early in 2002, Hickey was a vice-president and Stantec's Chief Practice Officer. His job was to help ensure that the firm had skills and people it needed for the long-term health of that growing organization.

Hickey has a strong grasp of the challenges he will face at the university. He knew the people in the U of A's project management office through the university's partnership with Stantec, and had already attended a number of meetings on campus.

"My priority is to deliver the capital programs on time and on budget," he said,



Don Hickey has been named the U of A's vice president (facilities and operations)

"and to maintain the high level of service now provided by the portfolio."

His formula for success is simple. "The most important thing in project management is excellent communication. You will not succeed without it. You need the contribution of thought from all levels and, I think, people should be able to enjoy the process. There's no point in getting the job done if you can't respect each other after it's over."

He knows that, politically, a university is far more complicated than a business. "There are always going to be competing interests, but I see a commitment to the common goals. I hope the academic community will see me as someone with the expertise to bring the infrastructure together."

Brian Heidecker, a board member who also served on the VP search committee,

says Hickey is an enthusiastic supporter of the U of A. "He has enormous experience in project management. He understands the infrastructure and won't let the physical limitations be an impediment to our success," he said. "Pulling it all together is his superb people skills, so critical in this environment. I'm confident we found the right guy."

In his spare time, Hickey volunteers with several organizations. He sits on several boards and is past-president of his golf club as well as the South Side Athletic Club. He was an account executive with United Way and coached both hockey and football. He and his wife, Susan, have three children, Ryan, 28, Kyle, 22, and Jocelyn, 21. Susan holds a degree in Phys Ed from the U of A and the three children have studied or intend to study at the university. ■

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Engineering school named for "first family"

Hole family hopes others will be encouraged to donate

By Geoff McMaster

A new school of engineering at the University of Alberta will carry the name of the well-known Hole family, five of whom earned degrees from the Faculty of Engineering.

Harry and James Hole presented the faculty with a cheque last month for \$5 million – also endorsed by brothers Ralph Hole and the estate of the late Bob Hole – to help fund the \$65-million Markin/CNRL Natural Resources Engineering Facility (NREF). The new Hole School of Construction Engineering will be located in the building when it is completed in 2004.

"Any of you who are familiar with our family will know that we're on this stage looking for this publicity fairly reluctantly," said Harry, who was moved to tears in recalling his years at the university, during the 1940s. "We really don't go for publicity. If Dad were here he'd say, 'Look, if you can do it, put it up and shut up.'" Hole added that he hoped the donation would encourage others to give to charity.

Located next to the Electrical Computer Engineering Research Facility (ECERF) on the northwest side of campus, the NREF building will create 30,000 square metres of new space for the faculty, including 14 classrooms, 16 undergraduate labs and 84 research labs. It will be geared towards all areas of natural resource development, including petroleum, mining, environmental, geotechnical, water resources, structural and construction engineering.

It will be designed to meet increasing demand for graduates and research in programs related to natural resource development, said Dean of Engineering Dr. David Lynch, who pointed out that the engineering faculty is undergoing dramatic growth with \$52 million in research funding, a 400-per-cent increase over the past five years. It also has an undergraduate and graduate enrolment of more than 4,000 students. He said the faculty has grown by more than 65 per cent during the past six years and is one of the fastest-growing engineering schools in North

America, a fact made possible only by strong support from industry, government and alumni.

"Engineering alumni at the University of Alberta have a distinguished record of both achievement and a strong involvement in, and support for, their community," Lynch said in thanking the Hole family. "They have demonstrated time and again that they truly have the ethic of giving something back to support their community, their society and future generations of students at their university."

Family members have been involved with the U of A not only as students. Alberta's popular Lieutenant-Governor, the Honourable Lois Hole, once served as the U of A's Chancellor. "The Holes could well be considered the University of Alberta's 'first family,'" said U of A President Rod Fraser. "Their long tradition of unwavering support continues as they assist us in whatever capacity is needed – as advocates, as leaders and as generous supporters." ■

Planning for a pandemic

When a global flu pandemic strikes, will we be prepared?

By Richard Cairney

Canadian troops return from a distant war bringing with them not only battle scars, but also a silent killer. They unwittingly carry a virus, which begins to spread rapidly. Ultimately, the disease kills more people than the war itself.

It sounds like a modern-day bio-terrorism scenario, but it is, in fact, what happened at the end of the First World War. Soldiers returning from the war brought the Spanish flu, an unforgiving strain of the virus, to Canada. In Alberta, more than 3,000 people died, and in October of 1918, Pembina Hall on the University of Alberta campus was turned into a temporary hospital to accommodate patients with the disease. Nationally, some 50,000 died. In the U.S., 600,000 died. Globally, an estimated 20 million people – twice the number killed during the First World War – were killed by the Spanish flu.

The 1918 - 1920 flu pandemic was one in a series of relatively regular outbreaks that sweep the globe. Pandemics were recorded in 1957, 1968 and 1976. In Hong Kong in 1997, a strain of the flu jumped from chickens to humans, claiming the lives of six of the 18 people it infected. The so-called 'bird flu' prompted public health officials in Hong Kong to kill every chicken on the island in order to thwart the spread of the virus.

The incident renewed efforts among public health workers internationally to consider ways to respond to the next deadly flu virus.

"This is a question of not 'if' but 'when' this will happen," said Dr. Karen Grimsrud, deputy provincial health officer for Alberta Health and Wellness. Grimsrud is part of provincial and national efforts to plan for a flu pandemic that could, at worst, see our society grind to a halt.

In worst-case scenarios important questions arise: who would keep our streets safe if our police officers were sick or dying? Who would extinguish a house fire if our firefighters were ill? Indeed, who would care for the sick themselves if our caregivers were incapacitated?

Martin Meltzer, a senior health economist with the U.S. Centers for Disease Control's office of surveillance recently posed the questions to health care workers and planners in Edmonton. In a meeting hosted by Alberta Health and Wellness, Meltzer outlined mathematical models the CDC has created to simulate pandemics which, in turn, allow policy makers to decide how to handle an outbreak. Meltzer's models estimate up to 300,000 deaths and one million hospitalizations with an economic impact of up to \$70 billion in a moderate scenario in which 35 per cent of the American population is infected.

"You need to ask yourselves," Meltzer said, "how many people are likely to get ill? How many people will need or want to see a doctor? How many people will need to go to a hospital? How many people are likely to die?"

Policy makers even need to consider what to do with corpses if large numbers of people begin to die. "What is your morgue capacity?" he asked. "Can you get a refrigerator truck? Who do you call to get one? How many trucks can they give you? These are tough questions."

So, too is the question of who gets vaccinated first. In typical flu seasons, at-risk populations, seniors in particular, are pro-



Allocation of resources during a medical emergency will depend on who is hit hardest.

tected with flu shots. But in a pandemic, Meltzer said, policy makers need to consider protecting society's most productive members – those between 20 and 64, for example – instead of those who are most vulnerable.

"If the cost of a pandemic is between \$30 and \$70 billion, I'm going to want to allocate my scarce resource (a vaccine, which could only be developed after the pandemic begins) according to economic principles," he said. "And you'll notice that in this scenario grandma and grandpa go right to the bottom of the list. . . . It's a difficult thing to put in front of politicians and policy makers. It takes a lot to explain to someone why they have to go to the back of the line."

Grimsrud, who is a member of the Alberta Influenza Pandemic Working Group, said Alberta will follow national priorities when they are established, likely some time this year. Dr. Theresa Tam, chief of viral respiratory diseases with Health Canada's Centre for Infectious Disease Prevention and Control, says who gets vaccinated first depends only partly on whom the virus hits hardest.

"We haven't officially published anything, but it is likely that people who run health services, the health providers and emergency service providers, and people at high risk of dying or getting severe

influenza will be at the top of the list," said Tam, a member of the federal-provincial Pandemic Influenza Committee.

"Your health care workers are your front line and that is the rationale in caring for health care workers and paramedics first, then people at high risk for fatal outcomes," she said.

But really, how bad could it be? Tam says scenarios under consideration in Canada are every bit as horrific as those Meltzer cites. "How to deal with all the extra corpses is in the plan as well," Tam said.

Alberta's plans predict four times the average number of outpatient hospital visits, at up to 600,000; four times the average hospitalization rate, at 13,000 hospitalizations, and eight times as many deaths, up to 26,000. "And that's a mid-range pandemic, not worst-case scenario," said Grimsrud.

Nationally, based on the same models Meltzer uses, Tam says Canada could expect up to five million outpatient visits, nearly 140,000 hospitalizations, some 58,000 deaths and an economic impact of up to \$24 billion.

How society deals with such devastation is a matter for public debate, said Meltzer. "This had better be as public a debate as possible," he told Alberta health-care workers. "The public is going to see

"If the cost of a pandemic is between \$30 and \$70 billion, I'm going to want to allocate my scarce resource (a vaccine, which could only be developed after the pandemic begins) according to economic principles. And you'll notice that in this scenario grandma and grandpa go right to the bottom of the list. . . . It's a difficult thing to put in front of politicians and policy makers. It takes a lot to explain to someone why they have to go to the back of the line."

– Martin Meltzer

the impact of decisions made now, and they're going to want to know how those decisions were made."

Tam says public debate is an important element of the planning process.

"What we're saying is that this is a big deal, and we're preparing for it," she said. "The estimates we've come up with are enough for us to know this is something we should plan for. Any model is only an estimate – I don't know how accurate models can be. When the real thing arrives, anything can happen."

FURTHER READING:

For more information on influenza and plans for a global pandemic, visit these Web sites:

- FluNet – The World Health Organization's global influenza surveillance network: <http://oms.b3e.jussieu.fr/flunet/>
- Viral Watch – the Alberta chapter: <http://www.ruralnet.ab.ca/viralwatchalberta/>
- Flu Watch – Health Canada's influenza information centre: <http://www.hc-sc.gc.ca/pphb-dgspsp/fluwatch/index.html>
- Flu in the U.S. – the U.S. Center for Disease Control's influenza Web site: <http://www.cdc.gov/ncidod/diseases/flu/fluvirus.htm> ■

Killam professor's no ivory-tower academic

Local knowledge and teamwork are important influences in research

By Scott Lingley

In addition to accomplishments in research and teaching, a Killam Professorship applicant is considered in light of community involvement. Dr. Dean Befus' involvement with community extends back more than three decades to his undergraduate days at the University of Alberta. Members of the community in question just happened to have horns.

"My first summer job when I was an honours zoology student was working on bighorn sheep and working on a lung-worm-pneumonia disease complex that bighorn sheep in Alberta can get, that causes significant die-offs in bighorn sheep herds sometimes in severe winters," Befus said. "That's when I became interested in the lung and inflammation in the lung and lung disease."

Befus has taken a circuitous route to get there, but his current status as AstraZeneca Chair in Asthma Research and director of the Alberta Asthma Centre bear out the rigour with which he pursues his interests.

Befus followed his zoology degree at the University of Alberta with an MSc in parasitology from the University of Toronto, the first step in what Befus expected to be a career as a fisheries biologist. While working on his PhD at the University of Glasgow, Befus' research brought him in contact with mucosal immunology, the study of the role of mucosal surfaces – the lung and the gut – in infection and disease, as well as the body's defence mechanisms. During his post-doctoral work at McMaster University, Befus began studying the mast cell, thought to be a significant player in the body's defence against infectious disease in the gut. As more came to be known about the mast cell, a link was made between mast cells and allergic reactions in the lung and so brought Befus full circle with his original interest in the body's bel-lows.

Befus' commitment to the scientific community, both within and outside his field of expertise, has manifested itself var-

iously – he's organized conferences, chaired or presented at more than 50 national and international scientific sessions and acted as a spokesperson for the value of the Canadian contributions to scientific and medical research.

While on faculty at McMaster University he made major commitments to the Canadian Society for Immunology, serving as a science policy officer for the country and lobbying politicians in Ottawa for research funding and working to help politicians understand the importance of Canadian brain power. "And I worked for a number of years getting members of the scientific community to appreciate the importance of that kind of lobbying and communication," he said.

Befus says his notion of community has been further extended by working abroad and discovering that visitor and host alike have much to learn from each other.

He became involved in the Canadian Society for International Health and developed a strong interest in community development issues in the developing world. "I worked in West Africa and Thailand and those experiences really made me begin to understand some of the issues of community development and what was known broadly as people's knowledge, rather than ivory tower-academic knowledge," he said.

"I guess I began to appreciate that issue of people's knowledge and what is actually known as participatory action research, and that is that we aren't in ivory towers with all the knowledge and we don't just go into communities and just tell people what to do because we know what's good for them."

His work, since assuming the directorship of the Asthma Centre, has been expressly community oriented, including the development and implementation of educational programs for children with asthma and health care professionals to develop a team-based approach to disease management.



Richard Siemens/Creative Services

Dr. Dean Befus has been awarded a Killam Annual Professorship.

Knowledge sharing is just as important in the lab, and Befus says the spirit of collaboration carries right over into the realm of research.

"I've tried to take those principles into the basic science laboratory and how one manages trainees and how one tries to educate them about their role and how they should function in teams ... and not be those ivory tower kinds of individuals. So I guess that's the kind of community philosophy I have."

Dr. John Wallace, Professor of Pharmacology and Therapeutics at the University of Calgary, worked with Befus during his time there and affirms Befus' commitment to the group work ethic.

"He does not direct research in his laboratory, he empowers his employees and trainees to play a very active role in directing their own work, providing advice and

direction when necessary," Wallace said. "He has been a profound influence on my own career and that of many other researchers, both in Canada and abroad."

Befus also puts great stock in the academic community and is proud to find himself in the distinguished company of Killam Award recipients at the U of A.

"I was relatively naive about [the Killam Professorship] until I began to go through the [application] process and appreciate the magnitude of the commitment and what it's done for people, not only at the University of Alberta but across Canada," he said. "From a personal standpoint, it's wonderful to be recognized within the context of your own university. It's also a time when you reflect on what you've done — for so many years, one feels that that's just part of your job and to be acknowledged is really quite important." ■

Med students tell children to "Butt Out"

Preventive project reaches kids early

By Ryan Smith

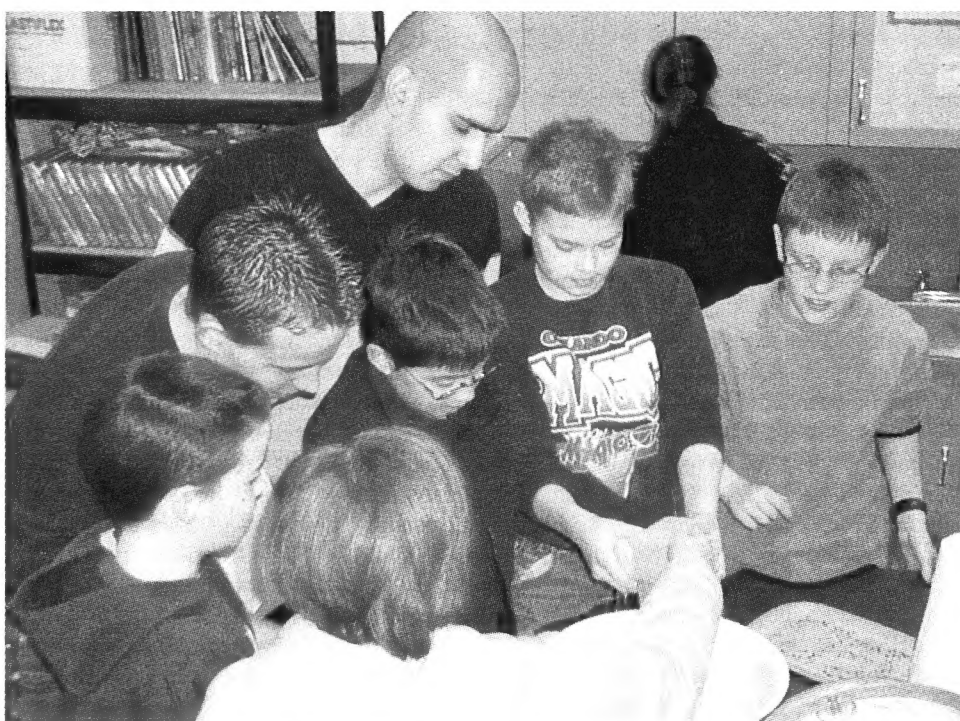
What started in 1998 with a few University of Alberta medical school students concerned about the ills of smoking has developed into an award-winning program that now includes more than 220 volunteers.

This year, the U of A medical students' Butt Out program, which recently won the Prevention Power Community Award for innovation from the Edmonton Capital Health Authority, will reach more than 400 local elementary school students.

Working with Alberta Learning, and with funding support from the Alberta Alcohol and Drug Abuse Commission, the medical students have developed a lesson plan that requires teams of eight students to visit Grade 5 or 6 classes for an hour a week for four weeks. Among other things, the young students conduct experiments, play games, develop their own anti-smoking commercials, and are exposed to a number of materials, including parts of lungs preserved in formaldehyde from smokers and non-smokers, that show the effects of smoking.

"Some of the same chemicals found in nail polish and rat poison are put in cigarettes," said one elementary school student, explaining what she'd learned after a recent visit from Butt Out volunteers.

"I've taught this unit before – but with-



Two U of A medical students (left) use water, molasses, and sponges as tools to teach students in Grade 5 and 6 how lungs absorb air.

out the extra materials the med students have put together – and the med students have more credibility with the children than I do," said Gerry Hawkes, a teacher at McKernan Elementary and Junior High School in south Edmonton, one of 14 local

schools participating in the program.

"They're young and hip, they serve as role models, and I think our students really respond well to them.

"I've been thoroughly impressed with the program and the med students," he

added. "Statistics show that there is a golden window between the ages of 10 and 14 when you can really influence a kid and prevent them from ever smoking. And if the kids make it to 18 without smoking, the odds are that they won't ever start."

"This program is a form of preventative medicine, which is so important," said Diana Czechowsky, a first-year medical student at the U of A and a co-ordinator of her class's Butt Out program. Preventative medicine "keeps people healthy and reduces pressure on the health care system," she added.

"We also teach the children that the action of smoking is bad for you but smokers themselves aren't bad people just because they smoke – there are lots of different elements to the program," said Anke Schuumans, also a first-year U of A medical student and Butt Out co-ordinator.

"The best part for us is coming to the classes and meeting the children. We try to make it relevant and fun for them. The learning is hands on, and I think it's working," Czechowsky said.

Dylan, a Grade 5 student who went through the program, affirms Czechowsky's opinion. "Smoking's nasty," he said. "It wrecks your world. I'm not gonna smoke – no way." ■

Raelians, shmaelians: we're missing the point

Federal government ought to permit therapeutic cloning

By Timothy Caulfield

If you believe the reports coming from the religious cult known as the Raelians, the first human clone was recently born.

Though I remain skeptical about the truth of this claim – especially because the Raelians are balking on whether to allow genetic testing to confirm that the infant is, indeed, a clone – such stories once again highlight the need to pass laws that govern the entire area of reproductive genetics. And, in fact, Canada is in the midst of just such a policymaking exercise. Parliament will be debating Bill C-13, the Assisted Human Reproduction Act, in the very near future.

Legislators, however, need to be careful not to let these spectacular (and grossly unethical) actions deflect from rational policy development. They need to be careful not to conflate the issues associated with reproductive cloning with those associated with the use of cloning technology in other contexts. Reproductive cloning, in general, is condemned by both ethicists and those in the scientific community. There is, however, much less social consensus about “therapeutic cloning” – that is, the use of cloning technology for research purposes, such as the creation of cloned stem-cell lines or, perhaps, human tissue for transplantation.

Taken as a whole, few countries have specific cloning laws. Those that have regulated the area have chosen to ban reproductive cloning. There is, however, a great deal of variation in how countries deal with therapeutic cloning. For example, California, Britain, Singapore and Israel allow therapeutic cloning.

A number of countries, such as Ireland and Germany, have long banned all research involving human embryos; these prohibitive laws seem closely tied to a spe-

cific cultural or historic context, such as Ireland's strong Catholic tradition or the memory in Germany of the Nazis' eugenic policies. Other countries, such as Australia and France, have taken a middle-ground approach, allowing some forms of embryonic stem-cell research but banning therapeutic cloning; if Bill C-13 is passed as is, Canada will adopt such an approach.

Why the great diversity in approaches in such culturally similar countries? Do Canadians really feel so differently about therapeutic cloning as compared to Californians or Britons that a criminal sanction with a heavy prison sentence is required? Indeed, there are few other human activities that have met such different regulatory responses from such similar nations.

Available evidence indicates that most of the public supports the use of cloning technology for research purposes.

A 2002 Ipsos-Reid poll found that six in 10 Canadians approve of the creation of cloned human embryos for collecting stem cells. This seems a significant amount of support given that the controversial terms “embryo” and “cloning” are used and that the survey question makes no mention of potential therapeutic benefit. A study by PricewaterhouseCoopers did relate the technique to potential treatments, specifically to the cloning of human organs for transplant, and found that three-quarters of respondents said it was either very or somewhat acceptable. These findings are consistent with opinion research done in other countries, including the United States and Britain.

Despite such support, a sector of the public – about 10 per cent to 20 per cent in Canada – is steadfastly opposed to these activities. For this sector, no amount of sci-



Stories suggesting a human clone has been born are probably just that – stories. The federal government needs to move beyond hysteria and allow therapeutic cloning to go ahead.

entific or potential therapeutic benefit can justify the research. As such, policymakers are left without a clear public mandate. In July, the U.S. President's Council on Bioethics explicitly noted this lack of consensus; it concluded that a ban on all forms of human cloning was not justified and that a moratorium should be imposed to give time “to seek moral consensus” – a surprising result given the conservative position of the Bush administration.

I believe the international variation in cloning laws is a symptom of the deep moral ambiguity that surrounds reproductive genetics. With so much disagreement about the risks and benefits of cloning technologies, some countries have chosen to simply ban all forms of cloning involving human tissue. This is a mistake. Policymakers need to recognize that this is an area that will remain clouded by social uncertainty. All laws, especially criminal bans, need clear justifications. As noted in a 1982 federal report, The Criminal Law in

Canadian Society, criminal law should be an instrument of “last resort” and should only be used to respond to “conduct which is culpable, seriously harmful, and generally conceived of as deserving of punishment.” None of these elements are satisfied in the context of therapeutic cloning.

The Canadian government should not let the Raelians scare it into an inappropriate cloning law. Instead, it should amend Bill C-13 to make therapeutic cloning a carefully regulated, rather than banned, activity. Such an approach seems a much better way to recognize and respect the broad diversity of views relevant to this complex area. As recently argued by Australian scholars Brendan Gogerty and Dianne Nicol, “the public tends to demand prohibition of conduct that is universally opposed, but expects issues of moral ambiguity to be regulated.” ■

Timothy Caulfield holds the Canada research chair in health law and policy at the University of Alberta.

folio letters to the editor

University needs to wring money from the province, not students

Editor, *Folio*:

I would like to respond to the false dichotomy that has been created between quality of education and tuition. In the November 29 issue of *Folio*, an article on the annual Tuition Town Hall mistakenly stated that tuition must rise yet again in order to ensure quality.

I have two sets of concerns. First, the article takes “quality” to mean “indisputably recognized” – a vague definition indeed. If this administration wishes to ever have the support of the people (students) who pay what is becoming a sizeable component of their budget (24 per cent), then they could begin by explaining their purpose and defining their terms.

What students have seen in the past 10 years is an ever-decreasing proportion of the operating budget going to classroom spending, student services, professor salaries, and non-sponsored research. For the average undergraduate, the definition of quality is probably quite different than that of a professor or even a graduate student. For undergraduates, small classes, tenured pro-

fessors, and excellent services determine quality. It is possible that other factors also indicate educational quality; however, classroom spending must be one of the biggest indicators of quality in the budget.

In many cases, it seems that the definition of “quality” embraced by academic staff in the university governance system is the quality of research. If the university could perhaps explain or even propose how this research does or could help the undergraduate learning experience, then tuition increases may not be so abhorrent. However, I am unconvinced by the argument that research and teaching mutually reinforce one another. I have had the enlightening opportunity of first experiencing the teaching abilities of my professors, and then (because of my position) had a chance to examine the research of several instructors in the Faculties of Science and Medicine and Dentistry. The quality of good lecturers has been mirrored in the research of about half of those instructors – about what you might expect from a random distribution.

The only way for the administration to address this is to expand beyond the satisfy-everybody-jargon in the business plan and begin proposing a coherent and convincing argument to both the provincial government and the students for increased funding. Academic staff must find their funding through proposals; therefore, I should think administration could do the same.

The other issue that I have is the assertion that the only source of funding is tuition increases. Although increases in government base funding are a distant goal, this university has not embraced the reality that every person must be an ambassador for our school. The provincial government will not support universities of their own volition – what we need to orchestrate is a grass roots support for post-secondary education.

Tuition increases are a band-aid solution. Even in American schools with astronomical tuition levels, tuition does not pay near a majority portion of the operating budget – and it never will here either. What we need is some provincial support,

and the administration needs to form a proposal to get that support, instead of relying on tuition as a crutch.

Mat Brechtel
VP Academic
Students' Union

folio letters to the editor

Folio welcomes letters to the editor. Send your thoughts and opinions via e-mail to richard.cairney@ualberta.ca, fax at 492-2997, or by mail to Folio, Office of Public Affairs, 6th Floor General Services Building, Edmonton, Alberta T6G 2H1. Letters may be edited for grammar, style, accuracy and length.

Catching a scholarly Rush

Canadian power trio subject of dissertation on 'post counter-culture'

By Geoff McMaster

They're the quintessential Canadian rock band. Named our nation's ambassadors of music in the early '80s, the power trio was inducted to the Order of Canada in 1997 and received a star on Canada's Walk of Fame in 1999.

Lead singer Geddy Lee even sang the hit song *Take Off* with those McKenzie Brother hosers, eh?

Rush may not be to everyone's taste, but more than three decades after they cut their teeth on covers of Cream and Buffalo Springfield in a high school garage band, they still fill stadiums across North America with a loyal fan base. But can their body of work really be considered fodder for serious academic study?

Visiting instructor Durrell Bowman, filling in this year for University of Alberta music professor and hip-hop expert Adam Krim, who is on sabbatical, sees no reason why not.

"Popular music is important to people in our culture," said Bowman while displaying a memorabilia collection that would make the most ardent Rush fan turn green with envy. "Frankly, if you take all of the classical recitals and concerts that go on in this department here – more people will hear Rush in one gig than will ever hear these people over a 10-year period."

"That's the difference between how popular music matters in society and how classical music matters, and it's only going to get worse."

Bowman is a Canadian doctoral student from Ontario completing his thesis at UCLA called *Permanent Change: Rush, Rock, and Individualism in the Progressive Post-Counterculture*. One chapter has already been included in *Progressive Rock Reconsidered*, published this year by Routledge.

The musicologist's approach would be familiar to anyone involved in cultural studies. He takes up Rush as one example of converging musical influences, and as an intersection of competing ideologies reflected in the culture at large. He also considers the band's reception by fans and other musicians.

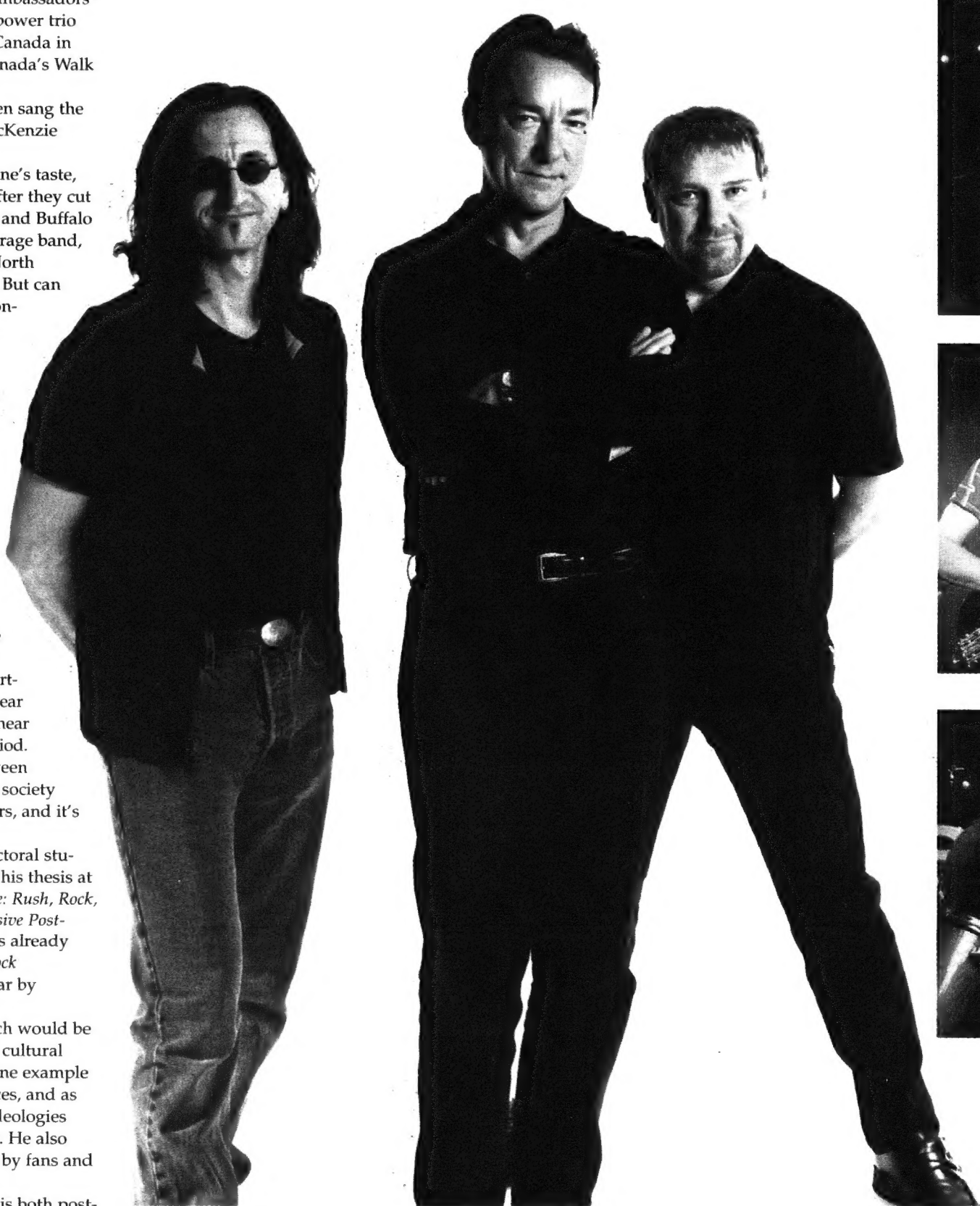
Bowman argues that Rush is both post-counter cultural and post-progressive rock ("heavy...born out of a love for rock and metal...but complex," says Lee). It fails to fit easily into any genre category.

And because the band is Canadian, suggests Bowman, it is more flexible than its American counterparts, better able to fuse together musical styles to create a unique hybrid. As Lee once said, "Rush is a constantly evolving concept of what a hard-rock band [can be]."

"I wanted to find popular music artists that had been around for a while and had delved into interesting things stylistically, lyrically and ideologically," said Bowman. Whereas many popular music scholars look back to the counter-culture of the '60s for inspiration, "that's never really clicked for me," he said.

Having grown up in the '70s and early '80s, the 37 year-old says it made more sense to explore the idea of post counter-culture "rather than one 'up against the man.'" In Neil Peart's lyrics, for example, and especially in the Ayn Rand-inspired break-out album, *2112*, Bowman sees an individual "trying to figure out how to fit into structures that are in place" rather than subvert them.

Bowman says he was a fan of the band in high school, "but I didn't really follow what they were doing until I was watching MuchMusic one day while in grad school. I saw the video to *Stick it Out* and thought, 'Wow, they're still around.'



Rush – Geddy Lee, Neil Peart and Alex Lifeson – have stood the test of time to become a 'post counter-culture' group that creates the modern equivalent of classical music, says Durrell Bowman. And they rock!

"I started joking about doing a thesis on Rush when I was fading away from the PhD program at the University of Toronto. People in musicology there were working mainly in classical music, and I didn't know where I would do (a popular music thesis)."

He had just proposed a thesis on musical scores to adaptations of Shakespeare, but no one in the U of T's music department would support it. Then he heard about the program at UCLA, which is renowned for studies in popular music.

That's when he started thinking seriously about the "stylistic variety in the band's music, the different kinds of influences, the things that were controversial." It doesn't really matter to Bowman that critics have, in general, "overwhelmingly not liked Rush," finding Geddy Lee's voice too shrill, the spirit of the music too tame, and Neil Peart's lyrics verging on being downright pretentious.

As one critic puts it, "Rush's music is one gigantic mistake. It has absolutely

nothing to do with rock and roll, or even crossing the street against the light." Others find the band has "all the excitement of a Howard Johnson's omelet," calling it "characterless, devoid of intelligence, feeling, or anything else."

In terms of composition, Bowman argues the music of Rush – with its 'modular' style, shifting time signatures (clearly evident in their top-40 hit, *The Spirit of Radio*) and structural complexity – works for today's listener in much the same way classical music once did, exposing him or her to a sound that is "intricately put together and made to change with different textures."

In fact some of the early Rush oeuvre has been translated into semi-classical form with the release of the string-quartet tribute album to the band, called *Exit...Stage Right*. The string arrangements of songs like *The Spirit of Radio*, argues Bowman in his thesis, "inadvertently expand my contention that aspects of progressive rock functioned as substitute classical music for many working class and lower-middle-class rock fans in the 1980s."

"Popular music is important to people in our culture. Frankly, if you take all of the classical recitals and concerts that go on in this department here – more people will hear Rush in one gig than will ever hear these people over a 10-year period."

– Durrell Bowman

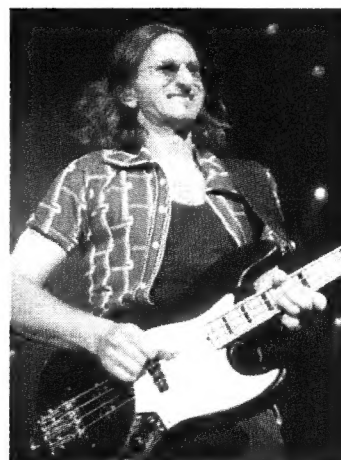
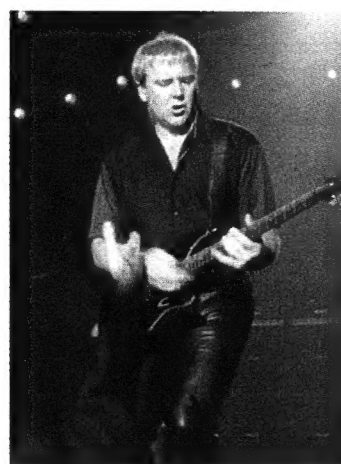
Having done a number of audience surveys at Rush concerts, Bowman says the average age of Rush fans is about 30, indicating the band has managed to stay current and relevant over the years. There are even a fair number of 12-year-olds, he says, who show up at the concerts with their parents.

But the vast majority of hard-core fans appear to be musicians or songwriters. They are, says Bowman, true "musicians' musicians"; among their followers are artists as diverse as Marilyn Manson, The Red Hot Chili Peppers, Barenaked Ladies, Beck, Metallica, Billy Joel, and Randy Newman.

"The musicians are treating this stuff as serious, instructional music on how to write songs," he said.

Despite the odds, says Bowman, Rush has managed to hang in there for more than three decades by remaining true to an individualistic and experimental spirit. In the words of one Geoff Pevere, a critic quoted in Bowman's introduction, they've positioned themselves "outside of vogue and fashion, touring with the relentless tenacity of a Canadian winter."

Fans of the power trio can catch up with the band at its official Web site, www.rush.com. Bowman's Web site can be found at www.durrellbowman.com/.



Prof shines light on deadly parasite

Research aimed at ensuring our drinking water is safe

By Stephen Osadetz

A decade ago, a city got sick. A parasite called *Cryptosporidium* infected Milwaukee's drinking water, causing 100 deaths and affecting 400,000 people. Now, Dr. Stephen Craik, a University of Alberta expert in water treatment, is working to make sure this kind of disaster doesn't happen again.

This bug's infections aren't pleasant. The parasite attacks its host's intestine, causing horrible diarrhea in the lightest of cases. For those who are more susceptible to the disease, say, those who are young, old, or whose immune system is compromised, *Cryptosporidium* can wreak havoc on their bodies. According to Craik, "It's symptoms are like cholera's – it's a nasty, horrible bug."

For this reason, Craik, who receives some of his research funding from the Natural Sciences and Engineering Research Council of Canada, studies *Cryptosporidium*. He's also interested in the parasite because it's an elusive beast.

Though conventional water treatment techniques such as filtration, ultra-violet irradiation, and ozone treatment do work against the protozoan, it's much more resilient than most microorganisms.

Chlorine treatment is totally ineffective, and filtration doesn't work as well as it does with other, larger protozoa. Scientists find that no matter what combinations of treatments they try, they can never quite

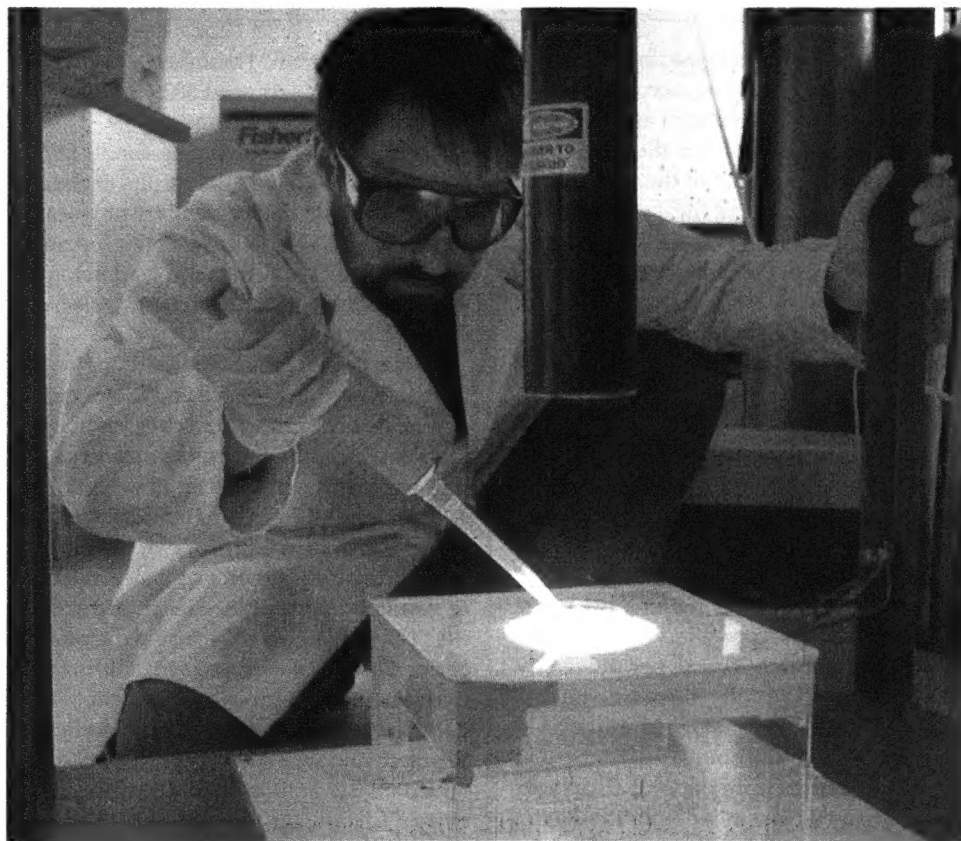
inactivate all the *Cryptosporidia*, Craik says, and because it only takes 30 microorganisms to make someone sick, this is a significant problem.

The parasite is so difficult to control that "it's driving drinking water regulations with respect to disinfection in the United States," Craik said. Some of Craik's research is being used by the United States Environmental Protection Agency to help develop these guidelines.

Part of the problem with *Cryptosporidium* is that it's difficult to tell how effective the treatments against it are. Unlike a bacterium that forms colonies on a Petri dish, for instance, *Cryptosporidium* can't be cultured. This has been a perennial problem for scientists working with the parasite.

Five years ago, researchers thought that UV light had no effect on *Cryptosporidium*, but Craik's research contributed to proving that view was wrong – until this revelation, researchers couldn't get the right experimental results, because the parasite was so hard to study. Now, mice are infected to see if treatments are effective: not the most ideal approach, but better than turning a blind eye to the parasite.

Currently, Craik is trying a number of different approaches to combat the parasite. He uses his training in chemical engineering and microbiology to build better UV reactors, finding how water properties



Dr. Stephen Craik at work in his lab. Craik's research focuses on keeping our water supply safe.

such as temperature, pH, and reactor design change the effectiveness of UV treatment.

"In Canada, we believe it's a funda-

mental right to be able to turn on the taps in our houses and not be exposed to microbiological hazards. That's the belief that drives the work I do," he said. ■

'If silence equals death, then voice equals life'

Scholar calls for submissions for book on AIDS

By Richard Cairney

During the early 1980s, when AIDS made its first deadly forays into Western society, it quickly became a social and political issue as well as a medical one. Early misconceptions of the disease infused it with social stigma, calling it a "gay cancer." Support groups became politicized, and the disease became a popular topic of public discourse.

With the development of so-called drug cocktails during the mid 1990s, treatment of those infected with HIV, the virus that causes AIDS, improved enormously. Patients who would have died within a couple of years of developing AIDS are now living much longer. The combined effects of improved treatments and public health education reversed the trend of rising infection rates.

At the same time, the AIDS pandemic remains a scourge. An estimated 42 million people worldwide are infected with HIV, the majority of them in developing nations – in Sub-Saharan Africa, more than 29 million people live with HIV/AIDS. As the disease traverses the globe, political and cultural effects follow in its wake.

"What we're seeing now is a huge apathy about AIDS in the West and a strange focus on AIDS elsewhere," said Dr. Diana Davidson, a post doctoral fellow researching world literature on the disease to learn more about its cultural effects. "People think AIDS isn't a problem here because we have good treatments, and things aren't as bad here as they are in Africa or the Caribbean."

A Killam Postdoctoral Fellow, Davidson is currently seeking submissions

"I think that will be the strength of this project – the diversity of stories from professional writers to people who have been personally affected but may never have put pen to paper before."

– Dr. Diana Davidson



Dr. Diana Davidson, a Killam Postdoctoral Fellow, is accepting submissions for a book about AIDS.

for a book entitled *The Art of Living: Albertans Write HIV/AIDS*. "I'm hoping to get everything from poetry to first-hand accounts to short fiction," she said.

So far she's received, for example, stories of personal response to the AIDS Quilt and a proposal from an AIDS activist to write a short history of AIDS in Alberta. "I'm appealing to a wide range of artists and writers out there, and I hope to accommodate a lot of material."

The compilation is a carry-over from a project Davidson headed up during a summer job with the South Peace AIDS Council in 1997, in the northern Alberta town of Peace River. At the time she collected stories about HIV/AIDS from a wide range of people with varied perspectives.

"We had submissions from semi-professional writers who had never been touched by AIDS to people who used our services, some of whom were HIV-positive," said Davidson. "I think that will be the strength of this project – the diversity of stories from professional writers to people who have been personally affected but

may never have put pen to paper before."

The deadline for submissions is Feb. 17, and they can run as long as 20 pages, said Davidson. She hopes to have the book published in time for a June 7, HIV fundraiser. She has been in touch with several publishers, one of which has shown strong interest: "It's exciting that this could be ready by June."

What's equally exciting to Davidson is the challenge and importance of writing about HIV and AIDS. Because the disease is still infused with cultural misconceptions, writers face the task of conveying a message without creating a stereotype.

A lot of AIDS activists may fit their own cultural stereotype, such as a "white gay man from London, New York or Toronto," she said. "A testimonial is different, but if you're writing creative fiction,

how do you get people to know what you're talking about without creating a stereotype? How do you negotiate that as part of the creative process?"

Davidson said Alberta's native communities, which have been hard hit by AIDS, have produced some strong literature about the disease. Knowing how people feel about it helps us understand it better, she said.

"In the 1980s, the activist group ACT UP's motto was 'Silence equals Death'. If silence equals death, then voice equals life. And if voice equals life, we need to know how we are speaking about AIDS."

Submissions to Davidson's project can be sent to Diana Davidson, 3-5 Humanities Centre, University of Alberta, Edmonton AB, T6G 2E5 or via e-mail at diana.davidson@ualberta.ca. ■

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Alberta universities top research funding list

By Richard Cairney

Alberta universities are leading the country in research funding, according to one of Canada's top research and development consulting firms. And the University of Alberta is at the head of the pack.

Research Infosource Inc., a business intelligence company that tracks research and development performance in Canada, released two reports late last year that ranked universities in the province, and the U of A in particular, at the top of the funding heap.

A November report placed the U of A in fourth place nationally in research intensity – the amount of money invested in sponsored research per full-time faculty member. In December, the company released figures showing universities in Alberta leading the way nationally in research intensity, sponsored research per capita, and research income per university.

"Alberta's on a roll – there's no question about it," said Ron Freedman, president of Research Infosource.

Citing figures from the 2001 fiscal year, the company's November report pegged sponsored research funding at the U of A at more than \$240 million, a 16-per-cent increase from the previous year's assessment. Last year, total sponsored research funding at the U of A surpassed \$300 million. In the past five years, the annual figure has more than doubled.

The report places Quebec second and Ontario third in research intensity.

Today's report indicates Alberta's five universities – the U of A, the University of Calgary, the University of Lethbridge, Athabasca University, and King's College University – posted an average of \$130,300 in research funds per full-time faculty member. It also states that in terms of per capita research funding, Alberta universities lead the way, drawing \$136 in sponsored research funding for each Albertan.

"Alberta also garnered the highest amount of research income per universi-

ty," said Freedman. The Alberta institutions, he noted, averaged \$83.6 million in sponsored research income.

U of A Vice-President (Research) Dr. Gary Kachanoski said the results of the reports indicate the high calibre of research conducted at Alberta's universities. And efforts at the U of A to take a leadership role in teaching and research have clearly paid off, he said.

"Our faculty are obviously doing extremely well in national and international peer-reviewed competitions to earn that money, which is based on the excellence of past work and proposals for new work," he said. "It speaks directly to our vision to be indisputably recognized, and to the relentless focus we've had on excellence in faculty, research associates, students, and staff."

"Gary is quite right – that is the number one factor," said Freedman, adding that two provincial funding agencies, the Alberta Heritage Foundation for Medical Research and Alberta Ingenuity, give Alberta an advantage other provinces don't enjoy. "Alberta has the two heritage foundations for research, which make potentially more money available to Alberta researchers. That doesn't diminish the first point, but it means the pool is deeper."

The results also indicate the U of A delivers a top-flight educational experience, Kachanoski added.

"Universities, by definition, do research in the context of education and training students...this means the ability for undergraduate students to experience research and understand it is significant on campus," he said.

The research funding also has an enormous economic impact on the Edmonton and provincial economy, Kachanoski said. In 2000-2001, more than 2,500 U of A employees were paid from sponsored research funds. Salaries and benefits from sponsored research funding alone exceeded \$75.5 million. ■

U of A and Suncor announce unique partnership

Donation provides lecture theatre, labs

By Geoff McMaster

The Suncor Energy Foundation and the University of Alberta are teaming up to support oil sands research and training.

Suncor has provided the engineering faculty with \$750,000 for a 200-seat lecture theatre and two laboratories devoted to oil sands research: one focused on extraction and one on upgrading. The donation will also support basic and applied research, and the training of undergraduates, graduates, and post-doctoral fellows.

U of A Dean of Engineering Dr. David Lynch said the faculty now has 75 of 165 faculty working on energy research, cutting across a number of disciplines. Along with graduate students and post-doctoral fellows, the faculty has a critical mass of 600 engineering researchers, which "may not be matched anywhere else in the country," he said. The faculty has a number of courses devoted to oil sands extraction and upgrading, which require specialized equipment.

Suncor Executive Vice-President (Oil Sands) Mike Asher said the new facility, devoted to studying the processing of bitumen (petroleum in solid or semi-solid forms), will be the only one of its kind in the world – "another first for the University of Alberta."

Since the company was founded 35 years ago, Suncor has produced more than 750 million barrels of oil, said Asher. It

plans to increase expansion to more than 500,000 per day, up from its current level of 225,000 per day, in the next 10 to 12 years. "The energy industry has an exciting and promising future, and oil sands development is a big part of that future," he said. He called investing in the U of A's oil sands development program a "natural fit."

Alberta Energy Minister Murray Smith was also on hand for the announcement, using the opportunity to voice his frustration with the federal government over the Kyoto Accord.

"I hope we find together, at the university and throughout Alberta...a way to give the eastern federal government some sense of energy policy in what we do in this province," he said. "Because they don't know, and every quarter century they come up with a woefully inept energy policy that makes us spend a lot of time and negative energy to combat their lack of foresight and vision."

President Rod Fraser said the university was "grateful to the Suncor Energy Foundation for supporting us in our continued commitment to be leaders in natural resources engineering research...These new facilities will give us the tools to become outstanding competitors in the knowledge-based global economy." ■

talks & events

Submit talks and events to Cora Doucette by 9 a.m. one week prior to publication. **Folio Talks and Events listings will no longer accept submissions via fax, mail, e-mail or phone. Please enter events you'd like to appear in Folio and on ExpressNews at: <http://www.expressnews.ualberta.ca/ualberta/L2.cfm?c=10>**

UNTIL FEB 05 2003

Fine Arts Open House Exhibition of Students Work, Fine Arts Program, Faculty of Extension, University of Alberta, 2nd and 3rd floor, University Extension Centre, 8303 - 112 Street, Edmonton, Gallery Hours: 8:30 a.m. to 8:00 p.m., Monday to Thursday, 8:30 a.m. - 4:30 p.m., Friday and 9 a.m. - 12 noon, Saturday.

UNTIL APR 2003

Campus Observatory The Campus Observatory is open to the general public every Thursday night beginning at 8 p.m. during the academic year, with the exception of holiday periods. The Observatory is operated by faculty and student volunteers belonging to SPACE (Students for the Promotion of Astronomy, Culture and Education). For further information, please contact Dr. S. Morsink at 492-3987.

JAN 10 2003

Department of Biological Sciences Shawn Morrison, Department of Biological Sciences, University of Alberta, speaks on "Winter habitat use and migration behaviour by white-tailed deer in New Brunswick." 12:00 noon in Room M-145 of the Biological Sciences Building. Web site: <http://www.biology.ualberta.ca/courses/biol631/>

JAN 10 2003

Department of Biological Sciences Michael Cohen, Department of Biological Sciences, University of Alberta, speaks on "Self-defense against insects: Exploring quantitative resistance in rice," at 3:30 p.m. in Room M-149, of the Biological Sciences Building. Host: John Bell. Web site: <http://www.biology.ualberta.ca/courses/genet605/index.php?Page=399>

JAN 10 2003

Department of Music Music at Convocation

Hall. Jacques Després, piano Ballades by Hétu, Debussy, Brahms and Chopin. Admission: \$12/adult, \$7/student/senior. 8:00 p.m.

JAN 12 2003

Department of Music Verboten Vucht Renaissance Flute Trio Kamala Bain, Teresa Hron and Laoise O'Brien with guest John Brough, alto. Admission: \$12/adult, \$7/student/senior. 8:00 p.m.

JAN 13 2003

Canadian Studies Café The Canadian Studies Centre of the Faculté Saint-Jean invites you to a Canadian Studies Café from 7:00 p.m. to 9:00 p.m. Laura Thompson delivers "The Teaching of La Francophonie in Canada's High Schools." The presentation will be bilingual (English-French). Admission is free. A light snack will be served. For additional information, please call 465-8716. Location: Cité francophone, 8627 91 Street.

JAN 13 2003

Department of Music Music at Noon, Convocation Hall. Student Recital Series featuring students from the Department of Music. Free admission. 12:10 p.m.

JAN 13 2003

Department of Chemistry Visiting Speaker, Professor Martin Tanner, Department of Chemistry, University of British Columbia, Vancouver, B.C. will present "Understanding Nature's Strategies for Enzyme-Catalyzed Racemization and Epimerization." 11:00 a.m., V-107 Physics Wing.

JAN 14 - 25 2003

Mikolaj Smolinski: Reverberations This exhibition is the final presentation for the Degree of Master of Fine Arts in Printmaking. The opening reception for this exhibition will be held at the Fine



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Arts Building Gallery January 16, 7-10 p.m. Gallery hours are Tuesday to Friday 10 a.m. - 5 p.m., and Saturday 2 - 5 p.m. Location: Fine Arts Building Gallery, Rm. 1-1 Fine Arts Building, 112 street and 89 avenue, University of Alberta.

JAN 14 2003

Research Seminar Cynthia Smith, co-ordinator of the Alberta Heart Health Project, presents "Building a Provincial Framework for Chronic Disease Prevention in Alberta from the Bottom Up." From 12 noon - 1 p.m. in 3-40 University Extension Centre. Web site: www.chps.ualberta.ca

JAN 14 2003

Department of Music Piano Masterclass with Visiting Artist Alexandra Munn. Free admission. 3:30 p.m.

JAN 15 2003

Department of Cell Biology Recruit candidate, Dr. Benoit I. Giasson, Postdoctoral Fellow, University of Pennsylvania, Department of Pathology and Laboratory Medicine. Title: "Molecular Neuropathology of Synucleinopathies." From 9:30 to 10:30 a.m. 5-10 Medical Sciences Building. Web site: www.ualberta.ca/cellbiology

JAN 15 2003

Department of English Katherine Sutherland - "Riding Bitch: The Uneasy Ride of a Chick on a Bike." Time is 12 noon. This is the first of an English Department Visiting Speaker Series. Location: Humanities Centre, L-3.

JAN 15 2003

Department of Public Health Sciences PHS Colloquium & Grand Rounds. Population Health presents Josie Cardinal, PhD Student: "First Nation's Services Utilization in Alberta." Location: Room 2-117, Clinical Sciences Building. 12:00 noon to 1:00 p.m. Web site: www.phs.ualberta.ca

JAN 15 2003

IPE Public Policy Workshop Professor Greg Marchildon, Executive Director, Commission on the Future of Health Care in Canada, will speak on "The Many Worlds of Sustainability: The Canadian Debate on Health Care Spending." 3:30 p.m. Location: HM Tory 1-91.

JAN 17 2003

Department of Biological Sciences Andrew Simmonds, Department of Cell Biology, University of Alberta, speaks on "Characterization of cis and trans acting factors responsible for cytoplasmic RNA trafficking," at 3:30 p.m. in Room M-149 of the Biological Sciences Building. Host: John Bell. Web site: <http://www.biology.ualberta.ca/courses/genet605/index.php?Page=399>

JAN 17 2003

Health Ethics Seminars Window on the Womb: Relational Ethics in Prenatal Diagnostic Ultrasound Examination. Presenter: Jeanne Van der Zalm, RN, PhD Administration-Patient Care, Royal Alexandra Hospital and Adjunct Assistant Professor, John Dossetor Health Ethics Centre. From 12:00 to 1:00 p.m. Location: Room 207, Heritage Medical Research Centre. Web site: www.ualberta.ca/bioethics

JAN 17 2003

Department of Philosophy Professor Paul Russell, Department of Philosophy, University of British Columbia, will speak on "Moral Sense and Compatibilism." Location: Humanities Centre 4-29. Time: 3:00 p.m.

JAN 18 2003

Department of Music MSA Formal. For ticket and event information, please contact the MSA Executive by e-mail: th@ualberta.ca 6:00 p.m.

JAN 19 2003

Department of Music Faculty Recital Tanya Prochazka, cello Janet Scott Hoyt, piano Brahms Clarinet Sonatas, Op. 120 and Schumann's Dichterliebe, arranged for cello and piano. 3:00 p.m.

JAN 20 2003

Department of Music Student Composers

Concert. A concert of new works for woodwind quintet by composition students at the University of Alberta. Studio 27, Fine Arts Building 2-7. Free admission. 8:00 p.m.

JAN 21 2003

Seminar Dr. Bhargirath Singh, Professor Dept. of Microbiology and Immunology, University of Western Ontario, will be speaking on "Antigen processing and presentation in immunoregulation of autoimmunity." Location: Classroom F (2J4.02) in WMC. From 11:00 a.m. to 12:00 p.m.

JAN 22 2003

Department of Music Quartango Workshop String and Ethnomusicology presented by The Arden Theatre. General admission: \$10. For tickets or more information, contact Kristen Cholak at 619-5690. 7:00 p.m.

JAN 22 2003

Study in Beijing Program What are you doing this Summer? Why not go to China with the University of Alberta's Study in Beijing program? Taking place in Spring Term (May-June 2003) this is your opportunity to see China, study in Beijing at the prestigious Foreign Affairs College, and earn 3 or 6 credits toward your U of A degree. Courses available include: Issues in Contemporary China; Traditions, Modernization, and Chinese Society; and a non-credit Chinese language for beginners course. The group will be led by an enthusiastic University of Alberta professor, Dr. Wenran Jiang, a specialist in East Asian politics. Come out to a special information session on Wednesday January 22 at 12 p.m. at the International Centre to hear more about this opportunity.

JAN 22 2003

Department of English Maurice Yacowar will speak on "The Sopranos." Event time is 12 noon. Location: HC L-3.

JAN 22 2003

PHS Colloquium & Grand Rounds Event sponsored by Department of Public Health Sciences. PHS Students Association presents: Pieter de Vos, MSc Student: "Tuberculosis, Adherence Behaviour and the Inner City." Location: Room 2-117, Clinical Sciences Building. From 12:00 noon to 1:00 p.m. Web site: www.phs.ualberta.ca

JAN 23 2003

Environmental Research and Studies Centre Watersheds, Wetlands and Oceans. Dr. Lee Foote, Renewable Resources, U of A, will speak on "Alberta wetlands: the joke is on us!" Location: 1 0013 Engineering Teaching Learning Centre. 4:30 p.m. Web site: www.ualberta.ca/ERSC/es.htm

JAN 23 2003

Models for Active Learning in Large Enrolment "Large Enrolment Series:" Large enrolment undergraduate programs pose a unique administrative and instructional challenge. This session examines large enrolment models developed at the University of Alberta and elsewhere to inform the development of technology-enhanced projects that focus on active learning in large-enrolment undergraduate courses. The session provides an overview of large enrolment projects and their outcomes to stimulate thinking around effective interventions. Presented by Ellen Whybrow. From: 3:30 - 5:00 p.m. Location: Telus 214/216 Web site: <http://www.atl.ualberta.ca/>

JAN 24 2003

Department of Biological Sciences Brad Magor, Department of Biological Sciences, University of Alberta, speaks on "Immunological 'learning': What fish need to know about their pathogens to survive the 'big test' in schools," at 3:30 p.m. in Room M-149 of the Biological Sciences Building. Host: John Bell. Web site: <http://www.biology.ualberta.ca/courses/genet605/index.php?Page=399>

JAN 24 2003

Department of Philosophy Professor Richard Zach, Department of Philosophy, University of Calgary, will speak on "The Development of the Decision Problem in the Context of Hilbert's Philosophy." Location: Humanities Centre 4-29. Time: 3:00 p.m.

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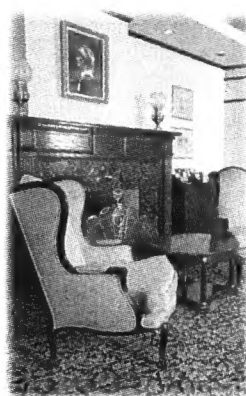
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MANAGER, COLLECTIONS/ DIGITIZATION PROGRAM MUSEUMS AND COLLECTIONS SERVICE

The Department of Museums and Collections Services is seeking a dynamic professional to provide leadership for the University of Alberta Museums Collections and Digitization Program. Reporting to the Executive Director, Museums and Collections Services, the manager will develop and implement a vision and strategic goals for this initiative. Specific responsibilities include: leading and facilitating the computerization and digitization of the university's object-based collections; researching and writing collections and information management policies and procedures; providing advisory services in these areas to the university community and beyond; grant writing and financial management; and contributing to the technology team that manages the computing systems environment.

The University of Alberta Museums is a community of 35 museums and collections, with a collection totaling over 20 million objects, specimens and works of art used for teaching, research and community service. This multidisciplinary resource is managed in concert with university faculty, staff and students in a networked research environment. The Department of Museums and Collections provides central, co-ordinated services and programs to the university's collecting community.

Qualifications include:

Masters degree in a related field plus five years of experience in an automated collections management environment;

Knowledge of museum/collections management theory, standards of practice and legislation, including preventive conservation and cultural property;

Knowledge of museum data management systems, computer systems and networks, including experience with Multi MIMSY or a related museum database product;

Knowledge of local, national and international heritage and museum communities, agencies and organizations;

Outstanding interpersonal skills; excellent written and oral communication abilities;

Strong analytical and organizational skills.

This is an Administrative Professional Officer position, with excellent benefits, and a salary range of \$45,000 to \$72,000.

Please send résumés in confidence by mail, fax or e-mail by Friday, January 24, 2003 to:

Janine Andrews
Executive Director
Museums and Collections Services
Ring House #1
University of Alberta
Edmonton, Alberta T6G 2E1

Janine.Andrews@ualberta.ca

Fax: 492-6185

We thank all those who apply, but only individuals selected for an interview will be contacted.

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2003-2004 KILLAM ANNUAL PROFESSORSHIPS

Applications for the 2003-2004 Killam Annual Professorships are now available. All regular, continuing, full-time academic faculty members who are not on leave during 2003-2004 are eligible to apply. Deans, Department Chairs and other senior University administrators with personnel responsibilities shall not normally be eligible for Killam Annual Professorships. Associate Deans and Associate Department Chairs are eligible providing they do not have personnel responsibilities. Up to eight Killam Annual Professors will be selected by a subcommittee of the Killam Trusts Committee; no more than two Professorships shall be awarded to staff members in any one Faculty in any given year. Each Killam Annual Professor shall be presented with a \$3,500 prize and a commemorative scroll. The duties of Killam Annual Professors shall not be changed from those that they regularly perform as academic staff members.

The primary criterion for selection shall be a record of outstanding scholarship and teaching over three or more years as evidenced by any or all of research publications, creative activities, presented papers, supervision of graduate students, and courses taught. The secondary criterion shall be substantial contributions to the community beyond the university, as evidenced by community involvement directly linked to the applicant's university responsibilities and activities.

Awards are tenable for 12 months commencing 1 July 2003. The completed application must be received at the Office of the Vice-President (Research), 3-7 University Hall, by 4:30 pm, Friday 28 February 2003. The awardees shall be announced by early May, and they will be formally recognized at the Killam Luncheon in the autumn of 2003.

Applications and further details are available on the home page of the Vice-President (Research) at: <http://www.ualberta.ca/VPRESEARCH/>

Please contact Annette Kujda, Administrative Assistant, Office of the Vice-President (Research) at extension 28342 or email: annette.kujda@ualberta.ca if you have any questions.


INTERNATIONAL PARTNERSHIP FUND

The International Partnership Fund (IPF) was established to support University of Alberta faculty and staff participating in exchange activities with the university's many partner institutions around the world. The fund provides financial support to faculty and staff engaged in the development and/or implementation of activities that contribute to sustainable and reciprocal relations with international academic partners. Awards may be used for travel by either the U of A staff/faculty member to visit an international partner, or for the faculty or unit to support a visitor from the partner. The fund favors activities that develop projects bringing an international focus to the academic, research and teaching mandate, and contribute to the internationalization objectives of the faculty.

Support from the IPF will ideally complement multiple funding sources. Matching support from the individual and/or the department/faculty and partner institution is required.

Note: The IPF only applies to those institutions with which the U of A has a formal agreement.


For guidelines, application forms and list of eligible partners, please contact: University of Alberta International, 1204 College Plaza, Tel: 492-5840/e-mail: cecilia.martinez@ualberta.ca. Application deadline: Monday, February 3, 2003.



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Spend a Night Not a Fortune



Wendy, Iggy, and their cat, Betsy

Kids shape museum Web site

By Geoff McMaster



When you arrive at the KidZone Web site, a sign on a tree house door reads, "Keep out." But when you click on the door, hosts Wendy and Iggy welcome you inside "the home of mysterious adventures and remarkable games."

And so begins a highly interactive journey in this colourful site for kids between the ages of nine and 12. It's all part of a larger virtual museum run by the University of Alberta Museums and Collections Services, designed to enlighten children on museum holdings while

help promote that innate curiosity that children have, as well as help them understand the research process as a sequence of wonder, discovery, and wisdom."

In one mystery, Iggy and Wendy's cat goes missing and visitors to the site must answer questions about bats, birds, butterflies, and other creatures of the natural world in order to find her.

"You can learn things from it. I like the characters, and I like Iggy's dog - he's cool," said 10-year-old Nick Eaton, a

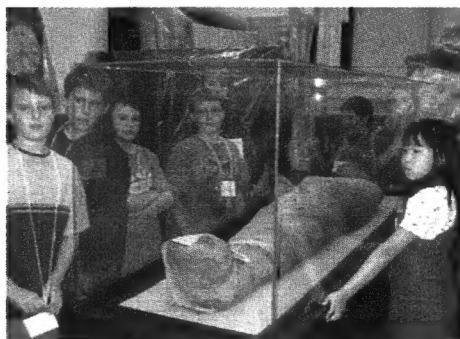
they could play," said Frannie Blondheim, manager of Museums and Collections Services. "But it is based on the Alberta Learning curriculum, so there are age appropriate concepts and topics."

The graphic content of KidZone was designed by a Quebec company called labideéclic. Work began last January, and the completely bilingual site was officially

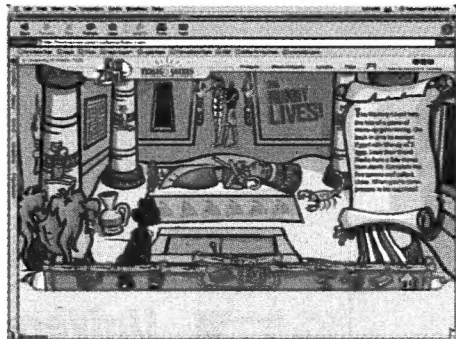
One glitch in an early version of the site, however, which the advisory board quickly identified, was the character of Iggy.

"Everybody said he looked like a geek," said Eaton. "He had glasses and baggy pants."

"The kids said they wanted characters they either identified with or looked up to and think are kind of hip," said Blondheim. "So they gave directions like, 'Ditch the glasses,' and 'He should have a skateboard.'"



The KidZone Advisory Committee learned about the university's mummy first-hand...



...as well as through the KidZone Web site story The Mummy Lives.

they have fun. Children are invited, for example, to solve various mysteries found in the university's museums.

"KidZone was created to inspire kids to discover the world around them," said Janine Andrews, executive director of the U of A's Museums and Collections Services. "The university's museums are full of fascinating artifacts and specimens, with lots of intriguing stories that go with them. We believe that this Web site will

member of an 11-member advisory committee of children who helped with the design of KidZone. "Some of the games are hard to do, but they're pretty good."

Eaton says he especially likes the characters' interactive bedrooms, which reflect their personalities. "You can click on different stuff and it does things. In Wendy's room there's a stereo, and it plays U2."

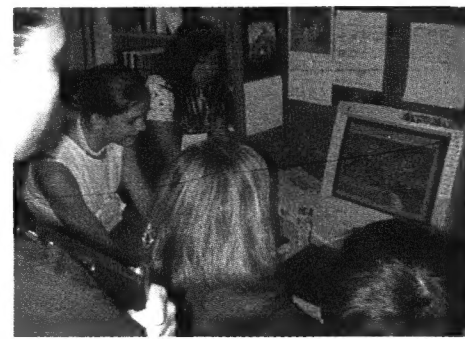
"We didn't want it to be completely a formal education but a fun place where



The KidZone Advisory Committee was composed of 11 kids, aged nine to 13, who live in Edmonton. They are (clockwise from far left): Katherine, Emma, Nadina, Marielle, Caitlin, Zach, Bill, Riley, Ed, Wilson and Nick.

launched last month. Funding was provided by the Canada Heritage's Virtual Museum program and the Edmonton Community Lottery Board.

Blondheim says the site was structured to accommodate future growth - more stories and museum contents - but also to encourage exploration beyond cyberspace. "We wanted to make sure there were activities that took kids away from the computer, and we hope to build on that."



Janine Andrews, executive director, Museums and Collections Services, demonstrates the KidZone Web site to the KidZone Advisory Committee.

In the end though, the kids gave the site an emphatic thumbs up.

"Iggy's cool now," Eaton declares, with a note of authority.

Visit the U of A KidZone Web site at: www.museums.ualberta.ca/kidzone/



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